

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/06648	International filing date (day/month/year) 25.06.2003	Priority date (day/month/year) 05.07.2002
International Patent Classification (IPC) or both national classification and IPC A61K7/06		
Applicant UNILEVER N.V. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).



 These annexes consist of a total of 7 sheets.

EPO - DG 1

30.07.2004

3. This report contains indications relating to the following items:

- | | | | |
|------|-------------------------------------|--|-------|
| I | <input checked="" type="checkbox"/> | Basis of the opinion | (107) |
| II | <input type="checkbox"/> | Priority | |
| III | <input type="checkbox"/> | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | |
| IV | <input type="checkbox"/> | Lack of unity of invention | |
| V | <input checked="" type="checkbox"/> | Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | |
| VI | <input type="checkbox"/> | Certain documents cited | |
| VII | <input type="checkbox"/> | Certain defects in the international application | |
| VIII | <input type="checkbox"/> | Certain observations on the international application | |

Date of submission of the demand 21.01.2004	Date of completion of this report 05.07.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Donovan-Beermann, T Telephone No. +49 89 2399-8213 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/06648

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17):*

Description, Pages

3, 4, 7-24 as originally filed
1, 2, 5, 6 received on 07.06.2004 with letter of 02.06.2004

Claims, Numbers

1-15 received on 07.06.2004 with letter of 02.06.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/06648**

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	1-15
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/06648

Ad Section V:

The present application relates to methods of treating hair using a leave-on treatment composition containing i) citric acid, tartaric acid, their salts or mixtures thereof, and ii) a xanthine compound, wherein the ratio of i) to ii) is from 1 : 0.01 to 0.01 : 1. Preferred ii) are caffeine, dyphylline, theophylline, cafaminol, aminophylline or theobromine.

The use of the above compositions for styling hair is claimed, as is the use of i) an α -hydroxy acid, its salts or mixtures thereof, and ii) a xanthine, substituted xanthine or mixtures thereof for lengthening hair, decreasing the volume of hair or increasing the high humidity style retention of hair.

The following documents may be referred to in the present procedure:

- D1: EP-A-0 325 969
- D2: EP-A-0 728 472
- D3: FR-A-2 751 541
- D4: US H1480 H
- D5: WO 96 10387 A

The amendments to the claims and description are considered allowable according to Art.34(2)(b) PCT in that they do not extend the scope of the application beyond that of the disclosure as originally filed.

Compositions containing a xanthine and an acid are known eg. from D1 which concerns the use of xanthine with salicylic acid for the treatment of alopecia.

D3 describes after-shampoo compositions for the treatment of hair to prevent/cure alopecia, which contain caffeine, with citric acid as a pH adjuster (see example 4). The level of citric acid is not given.

The prior art does not describe the present compositions for use in the styling or lengthening of hair, decreasing volume of hair or increasing the high humidity style retention of hair.

The methods and uses presently claimed are therefore novel and inventive with regard to the prior art (Art.33(2) and 33(3) PCT).